

## WHAT IS CLAIMED IS:

5 *at A* 1. An optical interference coating for reflecting infrared radiation and transmitting visible light comprising alternating layers of high index of refraction material and low index of refraction material, wherein the total number of said layers is greater than 51.

2. An optical interference coating as in claim 1, wherein the high index of refraction material is tantalum pentoxide and the low index of refraction material is silica.

10 3. An optical interference coating as in claim 1, wherein a ratio of the total thickness of all of the layers of high index of refraction material to the total thickness of all of the layers of low index of refraction material,  $r$ , is at least 0.9.

15 4. An optical interference coating as in claim 1, wherein a ratio of the total thickness of all of the layers of high index of refraction material to the total thickness of all of the layers of low index of refraction material,  $r$ , is at least 0.95.

20 5. An optical interference coating as in claim 1, wherein a ratio of the total thickness of all of the layers of high index of refraction material to the total thickness of all of the layers of low index of refraction material,  $r$ , is at least 1.0.

25 6. An optical interference coating as in claim 1, wherein a ratio of the total thickness of all of the layers of high index of refraction material to the total thickness of all of the layers of low index of refraction material,  $r$ , is at least 1.2.

30           7.    An optical interference coating as in claim 1,  
              wherein the total number of layers is greater than 55.

              8.    An optical interference coating as in claim 1,  
              wherein the total number of layers is greater than 60.

35           9.    An optical interference coating as in claim 1,  
              wherein the total number of layers is greater than 70.

              10.   An optical interference coating as in claim 1,  
              wherein the total number of layers is 78.

              11.   An optical interference coating as in claim 1,  
              wherein the total number of layers is less than 200.

40   *sub A2*   12.   An electric lamp comprising a light transmissive  
              envelope containing an electric light source within wherein  
              at least a portion of said envelope is coated with an  
              optical interference coating for reflecting infrared  
45               radiation and transmitting visible light radiation, said  
              coating comprising alternating layers of high index of  
              refraction material and low index of refraction material,  
              wherein the total number of said layers is greater than 51.

50           13.   An electric lamp as in claim 12, wherein the high  
              index of refraction material is tantalum pentoxide and the  
              low index of refraction material is silica.

55           14.   An electric lamp as in claim 12, wherein a ratio  
              of the total thickness of all of the layers of high index  
              of refraction material to the total thickness of all of the  
              layers of low index of refraction material,  $r$ , is at least  
              0.9.

15. An electric lamp as in claim 12, wherein the total number of layers is 78.

16. An electric lamp as in claim 12, wherein the total number of layers is less than 200.

add 43  
add 5  
add C1